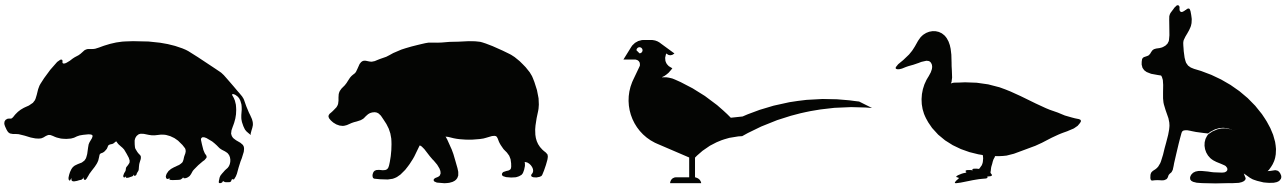
Fukushima Prefecture Government

# INFORMATION AND ADVICE FOR HUNTERS

Prepared in collaboration with the International Atomic Energy Agency

IAEA

THIS ADVICE IS PREPARED FOR AND APPLIES TO HUNTERS OF WILD BOAR, JAPANESE ASIAN BLACK BEAR, GREEN PHEASANT, COPPER PHEASANT, SPOT-BILLED DUCK AND HARE



## Background

The national distribution limit of 100 becquerels per kilogram (100 Bq/kg) for food also applies to the meat of wild boar, Japanese Asian black bear, green pheasant, copper pheasant, spot-billed duck and hare in the Fukushima Prefecture. This limit is for the sum of radioactive isotopes caesium-137 and caesium-134, jointly referred to as 'radiocaesium'. The 100 Bq/kg distribution limit applies to food that is sold commercially in shops, markets and roadside stalls as well as food that is given for free as a gift to others.

## Restrictions

Currently distribution restriction is in place for the meat of some wild animals in all seven districts of the Fukushima Prefecture. The meat to which the restriction is applied is different among districts. There is also a restriction on consumption of the meat of wild boar captured in Kenpoku and Soso Districts. The Fukushima Prefecture is considering how these restrictions could be lifted.

# Current situation

In Fukushima Prefecture, monitoring for radiocaesium in the meat of wild animals has been in place since the accident of Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant.
As an example, see the measurement data for wild boar and Asian black bear shot between 2011 and 2019 in Figure 1. This shows that:

(1) there is very large variability in the radiocaesium concentration in the meat of individual wild boar; and

(2) there is no obvious reduction in average concentrations observed since 2011.

Figure 1

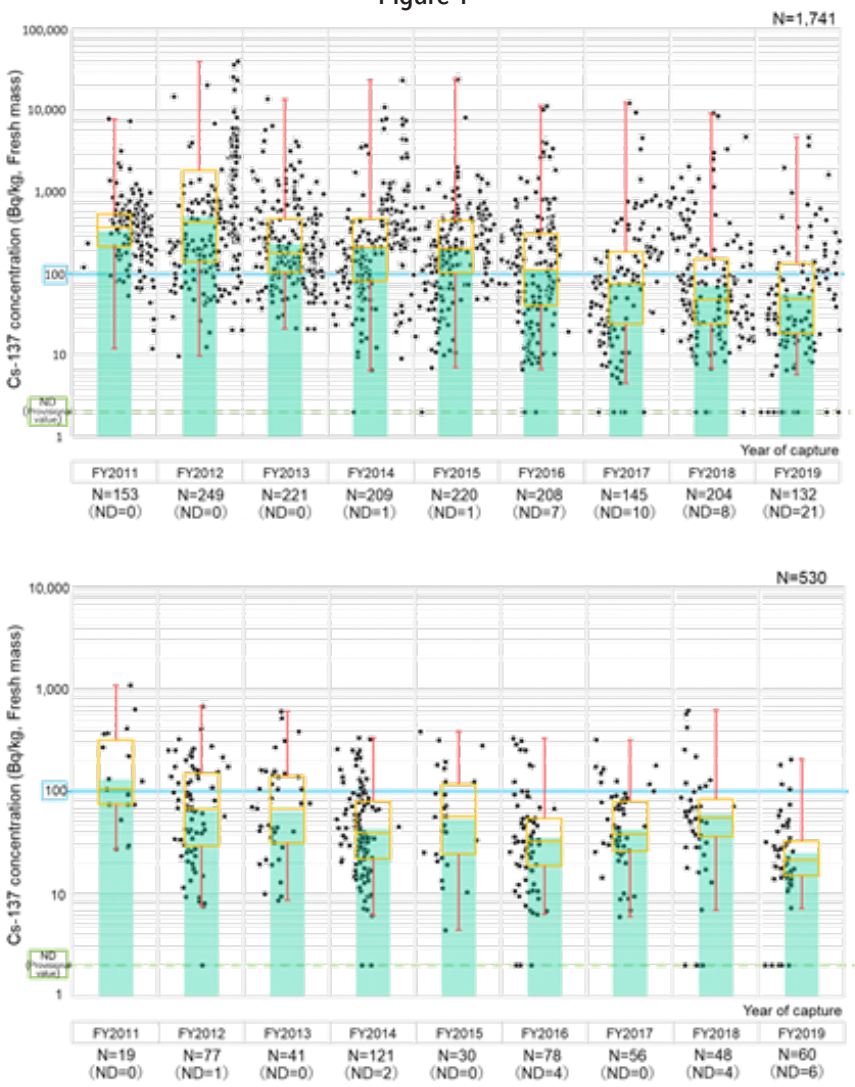
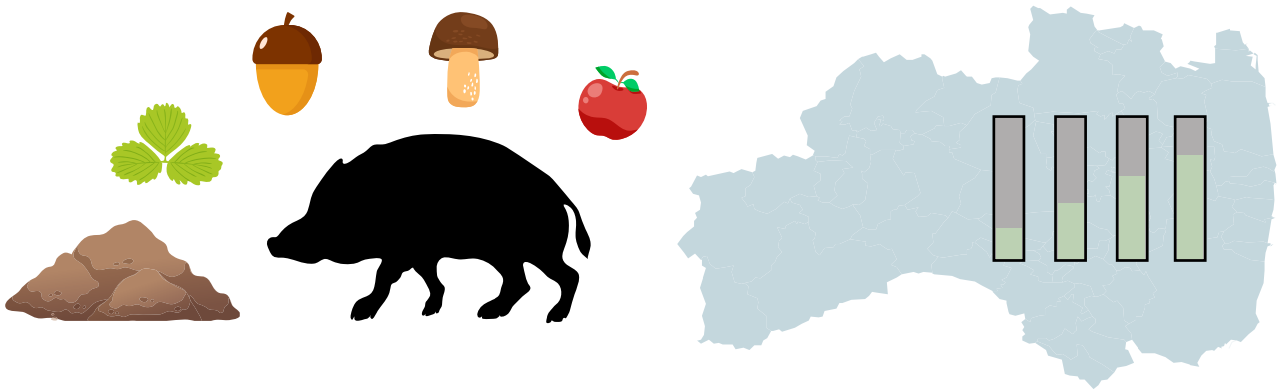


Figure 1 also shows that there is a small number of measurements for which the radiocaesium concentrations are much higher than for other animals shot in the same season. The reason for these outlier values is not fully understood. In Europe, following the Chernobyl accident, high concentrations of radiocaesium in some wild animals were shown to be due to the consumption of mushrooms, but there is no evidence that this is also the case in Fukushima.

As Fukushima Prefecture moves further from the Evacuation Designated Zone (EDZ), the concentration rate of radiocaesium in the soil, and also in the foods that form the diet of wild boar, decreases. This means that, in general, there are higher concentrations of radiocaesium in wild boar shot in the Coastal Region and lower concentrations in those from Aizu Region. This is confirmed by the measurements we have carried out.

One unknown is the extent to which wild boar are leaving the EDZ to source food in other parts of the Prefecture. This could explain why some of the animals shot outside the EDZ have such high concentrations of radiocaesium in their flesh.



## Advice

**It is important to continue monitoring of Cs concentration in wild animals captured in Fukushima Prefecture. Data which have been accumulated show that there is great variability of data amount among districts and seasons. The Prefecture believes that the more data accumulated the more precisely it can understand the Cs concentration rate.**

# Radiation doses

For caesium-137, adults receive a radiation dose of 0.000013 mSv for every becquerel ingested. This is the same whether the caesium-137 comes from wild boar or other foods. Table 1 below gives approximate consumption rates to receive a radiation dose of 1 mSv

| Activity Concentration of Radiocaesium (Bq/kg) | Total consumption (kg) to give 1 mSv |
|---|---|
| 100 | 750 |
| 1000 | 75 |
| 2000 | 37,5 |
| 5000 | 15 |
| 10000 | 7.5 |
| 50000 | 1.5 |

There is no direct evidence for health affects from radiation below doses of about 100 mSv.